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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,249	07/26/2006	Tomoharu Nishioka	SPL-06-1211	9642
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EXAMINER KASHNIKOW, ERIK				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/587,249

Applicant(s)

NISHIOKA ET AL.

Examiner

ERIK KASHNIKOV

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 12-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 07/26/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Specification

1. The use of the trademarks UBESTA®, REXPEARL® and TORELINA® has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 12-14, 16-17 and 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 5 and 10 of U.S. Patent No. 6,656,553. Although the conflicting claims are not identical, they are

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not patentably distinct from each other because while claim 10 teaches a three layer structure comprising a polyamide/adhesive polyamide/ adhesive ETFE, it is silent regarding the functional groups on ETFE. The limitation of the functional groups on ETFE are taught in claim 2.

Applicant's attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to where the specification shows that adhesive PA contains the same materials as claimed in the instant application (column 5 lines 55 to column 6 line 65). Also while claim 5 discloses an extra polyamide layer as an outer layer it is silent regarding the polyamide being polyamide 11 or 12, but the specification discloses these as the polyamides for the outermost layer (Example 2) and therefore, it would have been obvious to one of ordinary skill in the art to use polyamide 12 in outermost layer of US 6,656,533.

Claims 12-14, 16-17 and 21 are directed to an invention not patentably distinct from claims 2, 5, and 10 of commonly assigned Patent US 6,656,553. Specifically, see paragraph above for explanation of the rejection.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 6,656,533, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 15 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 15 and 18 recites the limitation "said layer (d)" in the first line of each claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 12-14, 16-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishi et al. (US 6,656,533).
8. In regards to claims 12, 14 and 21 Nishi et al. teach a 3 layer tube with the inner most layer being a fluorine containing polymer with functional group which has reactivity with polyamide based Resins (claims 1 and 2 and column 5 lines 55 to column 6 line 65) and teaches an additional outer layer for the tube (claim 5) and gives polyamide 12 as an example of the polyamide for the outer layer (example 2).
9. In regards to claim 17 Nishi et al. teach in claim 1 that the fluorine layer is an ethylene/tetrafluoroethylene copolymer.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 12-15, 17, 18, 20-24, 27-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626).

12. Stoeppelmann teaches new polyamide based adhesion promoter that works well with fluoropolymers (column 1 line11-13).

13. In regards to claims 12, 13, 14, 23, and 24 Stoeppelmann teaches a three layer system comprising a fluoropolymer inner layer, an intermediate adhesion promoting layer, which comprises a polyamide having amino and carboxyl groups, and a polyamide outer layer (claim 1). Stoeppelmann teaches that the outer layer includes polyamide 12 (column 5 lines 58-59). Stoeppelmann teaches that the polyamine intermediate layer can be PA6T, where T is a terephthalic acid compound (column 3, lines 42-43), as well as the addition of dodecyl or decyl diamines (column 2 lines 67-68). While Stoeppelmann is silent regarding the mol% of the terephthalic acid and the additive amines, it has been shown that absent a showing of criticality with respect to "the concentrations" (a result effective variable), it would have been obvious to a person

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of ordinary skill in the art at the time of the invention to adjust the "concentrations" through routine experimentation in order to achieve "polyamide based adhesion promoter". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Stoeppelmann further teaches that the innermost layer be a fluoropolymer (claim 1).

14. In regards to claims 15, 22 and 25 the intermediate layer taught by Stoeppelmann would also meet all the limitations of Applicant's layer (d). It teaches terminal amino groups present in ratios which can fit the concentration limitations of applicant's claims (column 3 lines 55-68). As such examiner points to MPEP 2144.04 section VI which states that duplication of parts has no patentable significance unless new and unexpected results are produced. As both layers are used to increase adhesion to the fluoropolymer layer no unexpected results would be produced. It is also pointed out that one would be motivated to double the layers to increase the overall adhesive strength between all the layers.

15. In regards to claims 17 and 27 Stoeppelmann teaches that the fluoropolymer layer can be a combination of hexafluoropropylene, tetrafluoroethylene and vinylidene fluoride (Claim 2).

16. In regards to claims 18 and 28 Examiner treats these claims as product by process claims (MPEP 2113) and therefore patentability is defined by the product itself and not by the process, as such the terminal modified polyamine is the product and has been previously rejected. In this case the Applicant's and the reference teach a

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polyamide that has been modified by a diamine, in this instance, a product by process claim, the process of making the product, whether it be adding the diamine during the polymerization or after polymerization leads to the same product, and the claims are therefore rejected.

17. In regards to claims 20 and 30 Stoeppelmann teaches that the tube can be co extruded (column 5 lines 25-26).

18. In regards to claims 21 and 31 Stoeppelmann teaches that these tubes are to be used as fuel lines (column 2 lines 49-50).

19. While Stoeppelmann teaches the three layer fuel line as stated above he is silent regarding the functional groups added to the fluoropolymer.

20. Shimizu et al. teach a thermoplastic resin containing fluorine which has improved mechanical and chemical abilities (column 1 lines 4-9)

21. In regards to claim 12 Shimizu et al. teach that the functional group for the fluorine containing compound can be an epoxy group (column 7 lines 26-27), which applicants list in their specification as one of the preferred functional groups to be added to the fluorine containing polymer. Shimizu et al. teach that this functional group is added to increase and improve interface affinity between the fluorine containing polymers and various thermoplastics (column 11 lines 25-45). Shimizu et al. teach that this fluorine containing polymer can be used in automobile fuel applications (column 11 lines 1-5).

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube of Stoeppelmann with the fluorine containing polymer of

Shimizu et al. because the tube of Stoeppelmann which has resistance to fuels and an adequately low permeation (column 2 lines 45-49) would benefit from the improved mechanical and chemical properties of the polymer of Shimizu et al. (column 1 lines 4-9).

23. Claims 16 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626) in further view of Oka et al. (US 5,670,608).

24. As stated above Stoeppelmann and Shimizu et al. teach a fuel hose which comprises three layers including an intermediate layer which contains a polyamide which is modified with terephthalic acid and a long chain alkyl amides. However they are silent regarding that amide being 1,9-nonanediamine.

25. Oka et al. teaches a polyamide composition which has superior moldability, heat resistance and mechanical characteristics (column 1 lines 6-11).

26. Oka et al. teach that the polyamide composition comprises a polyamide, terephthalic acid and 1,9-nonanediamine (column 2 lines 45-50).

27. One of ordinary skill in the art at the time of the invention would be motivated to modify the tube of Stoeppelmann and Shimizu et al. with the polymer of Oka et al. because the polymer of Oka et al. would offer superior moldability, heat resistance and mechanical characteristics (column 1 lines 6-11) to the tubes of Stoeppelmann and Shimizu et al.

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28. Claims 19 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626) in view of Krause et al. (US 5,554,425).

29. While Stoeppelmann and Shimizu et al. do state that at least one of the layers is electrically conductive (claim 4) they are silent regarding the fluoropolymer layer being electrically conductive.

30. Krause teaches fluoropolymer tubes used as fuel lines (column 1 lines 10-12).

31. Krause teaches that conductive particles are added to the fluoropolymer resin for the fuel tube (column 3 lines 55-60).

32. One of ordinary skill in the art at the time of the invention would be motivated to modify the tubes of Stoeppelmann and Shimizu et al. with the fluoropolymer of Krause et al. because the fluoropolymer of Krause et al. would add the ability to carry away electrical discharges that may form by the flow of liquids through the tube (column 1 lines 11-21 and column 3 lines 55-60) to the fuel tubes of Stoeppelmann and Shimizu et al.

Conclusion

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schmitz et al. (US 6,794,048), which teaches polyamide layers bound to fluoropolymer layers for the purpose of forming a fuel tube.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is

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(571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikov
Examiner
Art Unit 1794

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794